CLAIMS

1. A window apparatus comprising:

a) a fixed frame having an interior surface which defines an aperture;

b) a window pane assembly comprising a frame and at least one window pane mounted in said frame, said pane having a first and a second surface, said window pane assembly being rotatably supported in said fixed frame and being rotatable with respect to said fixed frame from a first position wherein said at least one window pane is parallel to said aperture defined by said fixed frame and wherein said first surface of said at least one window pane faces the outside to a second position wherein said at least one window pane is parallel to said aperture defined by said window frame and said second surface of said at least one window pane faces the outside, said window pane assembly being further rotatable from said second to said first position; and

c) a seal assembly comprising a seal frame and at least one pliable seal carried by and exteriorly positioned with respect to said seal frame, said seal assembly being located on the inside with respect to said fixed frame and sealing said aperture from the inside, being hingedly supported in said fixed frame, and being pivotally displaceable independently of the position of said window pane assembly from a closed position in which said seal frame is parallel and adjacent to said aperture defined by said interior surface of said fixed frame to an open position in which said seal frame is spaced from and at an angle to said aperture.

2. The window apparatus of claim 1, further comprising a glazing unit hingedly attached to the window pane assembly, said glazing unit being provided with at least one pane of glass parallel to, when in a closed position, and having different optical properties than the at least one pane carried by the window pane assembly, whereby said glazing unit is rotatable together with the window pane assembly so that said glazing unit is exteriorly disposed at said first position and interiorly disposed at said second position relative to the at least one pane carried by the window pane assembly.

3. The window apparatus of claim 2, wherein the at least one pane of glass provided with the glazing unit is capable of absorbing 30-90 percent of the energy of the incoming solar radiation at a wavelength between 0.3-4 microns and is nearly opaque to a wavelength greater than 4 microns.

4. The window apparatus of claim 3, wherein 30-90 percent of the energy of the incoming solar radiation is prevented from being transmitted to the inside at the first position of the window pane assembly.

5. The window apparatus of claim 2, wherein at least one gap is formed between the at least one pane carried by the window pane assembly and the at least one pane of glass provided with the glazing unit, whereby heated air is able to

circulate through said gap, at the second position of the window pane assembly, into an enclosure proximate to the window apparatus.

6. The window apparatus of claim 1 or 2, further comprising an actuator, said actuator in communication with the axle(s) of the window pane assembly, whereby to facilitate remote rotation of the latter.

7. The window apparatus of claim 2, further comprising a microprocessor, said microprocessor operative to receive input from sensors disposed at predetermined locations relative to the window pane assembly, whereby the microprocessor transmits a signal to an actuator in communication with the axle(s) of the window pane assembly to facilitate rotation of the window pane assembly from the first position to the second position, or vice versa, in response to predetermined sensed conditions of illumination and/or temperature.

8. A method of repositioning a window pane assembly, comprising providing a window pane assembly which carries at least one window pane and which is rotatable with respect to a fixed frame; providing a mounting for a water impermeable sealing element hingedly attached to the interior of the frame; opening said mounting; applying a force to said window pane assembly to thereby displace the latter from a first position at which one side of said at least one window pane is parallel to and facing a plane formed by the exterior

of the frame to a second position at which the other side of said at least one window pane is parallel to and facing a plane formed by the frame exterior, or from said second position to said first position; and closing said mounting.

9. This method of claim 8, wherein the at least one window pane carried by the window pane assembly can be washed indoors, such that one side of the least one window pane is washable at the first position of the window pane assembly and the other side of the at least one window pane is washable at the second position.

10. The method of claim 8, wherein the window pane assembly is manually rotatable.

11. The method of claim 8, wherein the window pane assembly is remotely rotated by an actuating means.

12. The method of claim 8, further comprising providing a glazing unit hingedly attached to the window pane assembly and which is provided with at least one pane of glass parallel to when in a closed position and having different optical properties than the at least one pane carried by the window pane assembly and rotating said glazing unit when in a closed position, together with the window pane assembly, from the first position of the window pane assembly to the second position, or vice versa.

13. The method of claim 12, wherein the glazing unit is exteriorly disposed at a first position during a summer mode and interiorly disposed during a winter mode at a second position relative to the at least one pane carried by the window pane assembly.

14. The method of claim 13, wherein the at least one pane of glass provided with the glazing unit is heated by solar radiation and subsequently releases energy to the inside during the winter mode by long-wave radiation or by convective heating.

15. The method of claim 13, wherein energy absorbed by the at least one pane of glass provided with the glazing unit is released to the outside during the summer mode by convection or by long wave radiation.

16. The method of claim 12, wherein the window pane assembly is rotated by means of a microprocessor to facilitate rotation of the window pane assembly from the first position to the second position, or vice versa, in response to predetermined sensed conditions of illumination and/or temperature.